A brief history of the new academic policies

TIM LIU
Arc Chair

The Registrar’s Office recently announced a new set of unit requirements designed to limit underloads, and the minimum number of units required for academic eligibility.

The full description of the unit changes was emailed out to students by the Registrar’s Office and can be viewed in the 2016-17 Catalog (pages 194-197). To summarize, students wishing to take over 48 units a term must get approval from their advisors with consent of the dean. To take over 51 units must petition the Deans. The 45 unit cap on academic units remains for underloads, but no longer on pass-fail. Finally, the eligibility line has fallen from 33 to 27 units. Students still must register for at least 36 units each term. [1] Students will remain academically eligible so long as they pass 27 units.[2]

One goal of a 4 year graduation experience was to encourage students to take reasonable loads and full advantage of a four-year educational experience. [3]

The 4-year education committee was chaired by Professor Gil Refael and included Don Crewell, Dean Barbara O’Hara, Mitch Morley, and Donald Larsen. After several meetings and student feedback, the committee presented a set of preliminary proposals. On April 21, 2016, the 4-year committee met with the ARC committee (including myself) and the IHC chair to seek student input. Prior to the meeting, ARC committee members received documents from several houses how the 4-year tuition policy had impacted their graduation plans. We received dozens of written comments about how the 4-year tuition policy had affected students. Our expectation was that the meeting would center on how to revise or remove the 4-year tuition requirement.

At the April meeting, we found that the 4-year committee had done more than narrowly revisit the 4-year tuition policy. The committee had tackled one of the original reasons behind the policy: how to encourage students to take a more balanced course load. The committee presented a set of proposed unit changes that were designed to discourage students from taking too many units beyond academic eligibility. The unit changes presented at the meeting were largely identical to those that the ARC committee had proposed to the Deans office (in the past, this line was 51 units). According to the 2016-17 Catalog, this policy is “aimed at having no effect on currently recommended courses of study in all options, while putting a very high bar for taking full-time classes simultaneously.” [4]

The committee had tackled one of the original reasons behind the policy: how to encourage students to take a more balanced course load. The committee presented a set of proposed unit changes that were designed to discourage students from taking too many units beyond academic eligibility. The unit changes presented at the meeting were largely identical to those that the ARC committee had proposed to the Deans office (in the past, the 48 unit line was not meant to be onerous or burdensome. According to Gil Refael, the expectation is that almost all requests to take over 48 units will be approved, and that the majority of students who wish to take up to 51 units will still be able to do so.

Taking more than 51 units will now require a petition to the Deans office (in the past, this line was 54 units). According to the 2016-17 catalog, “this policy is aimed at having no effect on currently recommended courses of study in all options, while putting a very high bar for taking full-time classes simultaneously.” [4]

The reasons for a 4-year graduation requirement have evolved over time but broadly fit into two categories. The first is to offer students a more balanced workload. There has long been concern among faculty members that students take too many classes early in their Caltech careers, and that this is causing excessive stress. The typical pattern is for students to take the most units per term during their sophomore year, with this number dropping drastically by senior year. [5] One goal of the new requirement is to smooth out the workload and reduce the rate of students burning out early in their careers.

The second reason is to encourage students to take full advantage of the Caltech experience. Some faculty members feel that students who graduate early are not getting the most out of Caltech. The argument is that courses such as research are not being fully utilized by students who graduate early.

The unit changes from the 4-year committee were presented to the faculty board during the May 2016 faculty meeting. The proposed changes were “approved critically” by the faculty, and included in the 2016-2017 catalog.

Overloading Changes

At face value, students have lost some freedom in deciding their course load. While students (minus freshmen) used to be able to take up to 54 units without additional approval, this line has been lowered to 51 units. Students who are taking 48 units in the fall are not allowed to take over 51 in the spring. Students who are taking more than 51 units will now have to register for at least 36 units each term. [1] Students still must register for at least 36 units each term. [1] Students will remain academically eligible so long as they pass 27 units.[2]

One goal of a 4 year graduation experience was to encourage students to take reasonable loads and full advantage of a four-year educational experience. [3]

The rules governing how tuition is billed have also been modified (University Handbook p 3-5; 2016-17 Catalog). The following paragraph from the 2015-16 catalog:

Students who graduate early, prior to 12 terms, will continue to be billed tuition for the full 12 terms. In addition, aid may not be disbursed to a student to cover tuition if they are no longer attending classes.

P. 184 Catalog 2015-16

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One goal of a 4 year graduation experience was to encourage students to take reasonable loads and full advantage of a four-year educational experience. [3]

The 4-year tuition policy is based on a four-year undergraduate experience. Students who graduate early, prior to 12 terms, will continue to be billed tuition for the full 12 terms. In addition, aid may not be disbursed to a student to cover tuition if they are no longer attending classes.

P. 184 Catalog 2015-16

has been removed from the 2016-17 catalog. At a practical level, this corrects a potential misinterpretation of the rules for how tuition is billed. The wording in the 2015-16 catalog erroneously suggested that students who successfully petitioned to graduate early would still be charged 12 terms of tuition. Hence, the above paragraph was removed from the latest catalog. The new wording makes it clear that students who successfully petition to graduate early will not continue to be charged tuition. In its place, the following paragraph has been added:

Since a Caltech degree is based on a four-year residual requirement, entering students should expect to be in residency and to be billed tuition for a full four years. Any exceptions must be approved by the dean of undergraduate students and the vice president for student affairs. In addition, aid may not be disbursed to a student to cover tuition if they are no longer attending classes.

P. 199 Catalog 2016-17

The new 4-year residency requirement removes a potential misinterpretation of tuition rules, even though this was not the main motivation for the change. Rather, the new rules are designed to be a clearer statement of Caltech’s mission.

Our mission is to educate the best scientists and professionals. The greatest benefit that Caltech has to offer is the gift of such an education to research with its faculty. The new 4-year policy is aimed at making clear that a Caltech degree is about completing a certain number of units. It is about giving our students the best opportunities to develop intellectually.

Gil Refael

[1] The 36 unit minimum registration line is a requirement imposed by external factors. It comes from an agreement with the federal government regarding financial aid, and for practical purposes cannot be changed.

[2] Students must also maintain a cumulative GPA of 3.5 and pass at least 108 units in the past 3 terms to remain eligible. Students passing between 27-35 units (inclusive) a term will be required to meet with the Deans but will not become ineligible.

[3] “Residency” is defined as being a registered student. A 4-year residency policy does NOT require students to live in a house or in Caltech affiliated housing. Terms where students take an approved underload will also count towards residency. Leaves of absences for whatever reason will be handled on a case by case basis.

Minutes and supplemental materials from faculty meetings are available online at caltech.edu. Thanks to Gil Refael and Joe Shephard, who were both consulted for this piece.

...
The Caltech Y Column serves to inform students of upcoming and existing club opportunities. The list is compiled by Katherine Guo from information given by the Caltech Y and its student leaders.

Founded by students in 1916, the Y was organized to provide extracurricular activities planned and implemented by students as an opportunity to learn leadership skills and to discover themselves. The mission of today’s Y remains the same—to provide opportunities that will prepare students to become engaged, responsible citizens of the world.

The Y seeks to broaden students’ worldviews, raise social, ethical, and cultural awareness through teamwork, community engagement, activism, and leadership. More information about the Caltech Y and its programs can be found at https://caltechy.org. The office is located at 505 S. Wilson Avenue.

Ongoing and past programs hosted by the Caltech Y:
- Alternative Spring Breaks: Peru, Costa Rica, Bali, York, Yosemite, San Diego, San Francisco
- Make-A-Difference Day: Hillside Home for Children, La Canada Arcorhebet and Botanic Garden, Children’s Hospital Los Angeles (Coachart), Eaton Canyon, Lifeline for Pets
- Explore LA: Lakers game, Next to Normal musical, Norton Simon Museum trip
- RISE Tutoring program (an afterschool math and science-focused tutoring program that supports public school students between grades 8 and 12)

Upcoming Events
1. Caltech Y Closed - Monday October 3rd
   The Caltech Y will be closed on Monday, October 3rd for our annual Golf Tournament. For more information please contact caltechy@caltech.edu.

2. Caltech Y Annual Golf Tournament & Auction
   Monday | October 3rd | From 9:00 AM - 7:00 PM | Highland Park
   For event details and golfers registration, please visit our website at: https://caltechlive.org/services/tutoring/Resources/

4. Hathaway Sycamores Tutoring
   Mondays through Thursdays | 5:30 - 7:30 PM | Highland Park
   Volunteer at Hathaway Sycamores, a group that supports local underprivileged but motivated high school students. There are a variety of ages and subjects being tutored. The service trip includes about an hour of travel time and a few hours of tutoring. Transportation is included. More info and to RSVP email Sherwood Richers at srichers@tapir.caltech.edu.

5. Backpack San Gorgonio
   Saturday-Sunday | October 8th-9th | Sat 6:30 AM - Sun 6:00 PM | Cost : $45
   Kick-off the year with a strenuous backpacking trip! We’ll be hiking up San Gorgonio, a 13,091ft mountain in the San Bernadino. It’s 18.5 miles over two days, with elevation gain of 5,990ft. The plan is to hike up, camp on top of the mountain, and head down the next day. Expect freezing temperatures at night, and incredible views from the top of the mountain.

Call campus x 4652 for information

Message from the BoC Chair
KATE EVANS
BoC Chair
When it comes to Board of Control (BoC) cases, it’s becoming increasingly apparent that people are confused about how collaboration and the Honor Code fit together. In courses that have vague guidelines such as “collaboration with other students is allowed,” students have trouble establishing when working together goes too far. Some professors have guidelines that further clarify their expectations for course work; for professors that do, follow their directions and the BoC will as well. But if your course doesn’t have a detailed policy, the BoC adopts a standard for acceptable collaboration, which distinguishes appropriate group work from taking advantage of other students.

The four points that we’d like to make sure all Caltech students are aware of are as follows: First, you must understand your entire solution, and be able to reproduce it if necessary. Second, complete solutions, down to each detail necessary for submission, should not be distributed, shared, or solicited amongst collaborators. Thirdly, previous years’ solution sets or answer keys for a course are to be considered off limits unless given explicit permission by the instructor. Finally, any resource heavily utilized, outside of course resources (ie, textbook, course notes, lecture notes), should be cited. These guidelines are for you to check your own work habits, not just for the BoC to use as a standard in cases. With regards to the first point, the BoC will not ask you to reproduce a solution you’d written earlier as a part of a hearing. We understand that time goes by and people forget specifics. But while you’re working, you should understand your solution deeply enough to be able to explain it or recreate it without the serious aid of your collaborators. The goal is for you to turn in work which represents your understanding of the material, and to avoid unintentionally taking advantage of anyone else’s work.

Please keep in mind that these are the general guidelines, but that any professor can make their course policy more or less strict, so always defer to your professor. When in doubt, just ask them. Processing a BoC case is far more work for a professor or a TA than answering your email would be, so they should be receptive to questions about their policy.

If you have any questions about the BoC or the guidelines above, please don’t hesitate to contact me directly at kevans@caltech.edu, or myself and the two secretaries, Gillian Kopp and Kevin Shu, at boe@caltech.edu.
Modular Space Telescope Could Be Assembled By Robot

ROBERT PERKINS
Caltech Media Relations

This article is adapted from a story that was originally published online at caltech.edu.

Seeing deep into space requires large telescopes. The larger the telescope, the more light it collects, and the sharper the image it provides.

For example, NASA's Kepler space observatory, with a mirror diameter of under one meter, is searching for exoplanets orbiting stars up to 3,000 light-years away. By contrast, the Hubble Space Telescope, with a 2.4-meter mirror, has studied stars more than 10 billion light-years away.

Now Caltech’s Sergio Pellegrino and colleagues are proposing a space observatory that would have a primary mirror with a diameter of 100 meters—40 times larger than Hubble’s. Space telescopes, which provide some of the clearest images of the universe, are typically limited in size due to the difficulty and expense of sending large items into space. Pellegrino’s team would circumvent that issue by shipping the mirror up as separate components that would be assembled, in space, by robots.

Their design calls for the use of more than 300 deployable truss modules that could be unfolded to form a scaffolding upon which a commensurate number of small mirror plates could be placed to create a large segmented mirror. The assembly of the scaffolding and the attachment of the many mirrors is a task well-suited to robots, Pellegrino and his colleagues say.

In their concept, a spider-like, six-armed "hexbot" would assemble the trusswork and then crawl across the structure to build the mirror atop it. It was modeled on the JPL RoboSimian system, which in 2015 completed the DARPA Robotics Challenge, a federal competition aimed at spurring the creation of robots.

Contact tech@caltech.edu

For questions about freshmen admissions, please contact the Admissions Office at 626-395-4308 or opc@caltech.edu.

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— S. Shankar Sastry, Dean, College of Engineering, University of California, Berkeley

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Men’s soccer posts second half shutout in defeat

GOCALTECH.COM Actual Sports Content Editor

Pasadena, Calif. (Sept. 28, 2016) – Senior J.D. Feist recorded a season-high. 90 save percentage and the Caltech men’s soccer team posted a second-half shutout in a 2-0 SCIAC defeat to Whittier College on Wednesday afternoon.

Whittier held the early edge, ripping the first shot of the game just 30 seconds into play before hitting the crossbar in the eighth minute. The Poets forced a pair of saves from Feist over the first 30 minutes before getting on the board with a ball over the defense and volley shot from six yards past Feist. The visitors doubled the lead in the 40th minute while Caltech mustered a lone shot, which came in the 32nd minute but went wide.

The Beavers stepped up their game in the second half to keep Whittier off the board, thanks in part to five saves from Feist. Caltech was able to generate four shots and won four corner kicks as the hosts played stout defense and successfully moved the ball through midfield. The end result was lackluster as the score line would remain the same at the final whistle. Senior Kevin Gao and sophomore Anh Boucher each put efforts on target, but both were saved.

The Beavers started slowly in the first set, falling behind the Poets before pulling back within 2-1. Whittier regained its early advantage and maintained the lead for the whole set, winning 25-16. Despite an advantage in hitting percentages in the second set, 23 to 19, Caltech was unable to hold an early 7-4 lead. Whittier rallied off eight straight points to take a 12-7 lead which the Poets would not give up, eventually taking the set, 25-19.

Volleyball tallies most points in four years vs. Whittier

GOCALTECH.COM Actual Sports Content Editor

Pasadena, Calif. – Sophomore Sakshi Vetivel recorded a season-high 11 kills as the Caltech volleyball team scored the most points in a SCIAC match in four years in a 3-0 loss against Whittier College on Friday evening.

Caltech scored more points (54) in what will be her final ITA tourney match against Colorado College’s No. 3 seed (1-16) and lost just one match to win a thriller in three sets (5-7, 7-5, 25-19) and lost just one match to win a thriller in three sets (5-7, 7-5, 25-19)

GOCALTECH.COM Actual Sports Content Editor

The final singles competitor for the Beavers is rookie Tine Valenčič, an unranked recruit and twin brother of No. 96 recruit Miha Valenčič, who will not compete in this tournament. Tine faces UC Santa Cruz’s Derek Levchenko, a hard-hitting senior who memorably rallied from being down match point against Li at The Ojai Tournament last spring to win a thriller in three sets (5-7, 7-5, 25-19) and lost just one match to win a thriller in three sets (5-7, 7-5, 25-19)

Tennis - ITA Regional Championships preview

GOCALTECH.COM Actual Sports Content Editor

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ASCIT Minutes

Meetings are every week in SAC 13

ASCIT Board of Directors Meeting
Minutes for 28 September 2016. Taken by Alice Zhai.

Officers Present: Tim Liu, Bobby Sanchez, Sakthi Vetrivel, Kalyn Chang, Robin Brown, Alice Zhai

Guests: Andrew Montequin, Adrian Huang, Michael Rupprecht, Chris Dosen

Call to Order: 12:00 pm

Officer’s Reports:

V.P. of Academic Affairs (ARC Chair: Tim):
- Looking for option chairs for the student faculty conference next week
- ARC meetings are open to the public and held in SAC 15 at 3PM on Sundays
- ARC has a new website - go to donut.caltech.edu and click on the ARC link on the left

V.P. of Non-Academic Affairs (IHC Chair: Bobby):
- Free dinners Wednesday (September 28) and Thursday (September 29)
- Prefrosh turn in house rankings to their RAs between noon to 2PM
- Rotation rules end at Friday 4PM

Director of Operations (Sakthi):
- Social closet has been tampered with - got new lock
- Redid all the inventory
- Publications are getting new workspaces
- Need to set up meeting for club funding
- Club Fair is Wednesday, October 5th

Treasurer (Kalyn):
- Finalizing budget for 2016-17 fiscal year, which starts on October 1
- Need to send out multi-house funding

Social Director (Robin):
- End of Rotation Party on Friday, September 30 - wristbands will be required at the party
- Weekly bagels and donuts are set up with CDS

Secretary (Alice):
- Future meetings will be Wednesdays at noon at SAC 15

Election for ASCIT president is on October 10th. Signups are up from September 28 to 5PM on September 30.

If anyone has any questions or concerns about a section of the minutes please email the appropriate officer. We are happy to answer any questions.

Meeting Adjourned: 12:22pm
ANDREW MONTEQUIN
ASCIT President Candidate

With political activity approaching its four year maximum, it’s easy to try to match every candidate to a common trope. In running for ASCIT President, perhaps the most difficult part of the process was figuring out which of these stereotypes I should portray myself as. Should I try to appeal to the freaks, the weirdos, the hippies, the disgruntled, the only moderately gruntled, the anti-establishment crowd, or some other portion of Caltech’s voting bloc? In the end, I came to the conclusion that I can be pigeonholed into one category and one category only: that of the political insiders. As the president of Ricketts and member of the IHC for a full year, I developed working relationships with every administrator of relevance to student affairs, served on the design committee for the new Bechtel residence and was involved in discussions about virtually every aspect of student life.

Despite the time I have spent becoming acquainted with the ins and outs of student government at Caltech, I am admittedly inexperienced when it comes to ASCIT. Throughout my year on the IHC, the majority of the interactions between the two main branches of student government were limited to the IHC Chair who serves on the ASCIT Board of Directors. With the recent arrival of the Class of 2020, you may have found yourself asking or being asked about the differences between ASCIT and the IHC and perhaps struggling to find the answer. In fact, with the exception of running Rotation (the Herculean task taken on by the IHC every year) the differences seem to be marginal. Both groups share the goal of representing and advocating for the undergraduate population. Unfortunately this fact is often forgotten, jeopardizing the efficacy of student government. With my past experience on the IHC and potentially future experience on ASCIT, I hope to bridge the gap between these two previously disjunct arms of the Caltech political machine.

Greater communication between the IHC and ASCIT will not only result in the houses having more even representation in student government decisions, but a more unified front will only be beneficial in dealings with administration.

JORDAN BONILLA
ASCIT President Candidate

If elected ASCIT president, I will do everything I can to disband the following organizations (in this order):

1) IHC
2) ARC
3) ASCIT

Thanks,
Jordan

Crossword

Across
1. Talon
5. A chance to do something
9. Egg-shaped
14. Fog
15. A long walk
16. Jewelled headdress
17. Ellipse
18. Fiend
19. Emblem of a clan or tribe
20. A small stream
21. Personal property
23. Employ
24. Supplement with great effort, ___ out
25. Typo
29. Cloak used to cover head and shoulders
31. Uncommon
33. Simian
34. Type of picture puzzle
36. A regular customer
39. Rain, snow, hail or sleet
42. Surgical instrument
43. Person who makes a gift of property
44. Distant but within sight
45. Layer
47. Requirements
51. Native or of a certain region
54. Draw
56. On the sheltered side
57. Meat from a deer
59. Raise
60. Enthusiastic approval
61. Mongrel
62. Movable cover
63. Part of the jaw
64. Way out
65. Usher
66. Misplace
67. Set of related records
68. Command
69. Pitcher
70. Large woody plant

Down
1. Refrain
2. Very generous
3. Ornamental shrub
4. Fountainhead
5. Surprise greatly
6. Above
7. Below
8. Move unsteadily
9. Freshwater mammal
10. Stringed instrument
11. Cereal grass
12. Anger
13. Water barrier
14. Surgical instrument
22. Command
24. Choose by a vote
26. Edible tuberous root
27. Au fait with
28. Males
30. Small bird
32. Stage whisper
35. Vitamin of the B complex
37. Expiate
38. Become fatigued
39. Drudge
40. South African monetary unit
41. Usually herbivorous land turtle
42. Caustic solution
43. Person who makes a gift of property
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Answers to current crossword (pg 7)

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